

**Title: Kibo High Vision EarthView**

Description: This project will provide high definition images of earth from the JEM Exposed Facility Platform on ISS. Two fixed mounted cameras with zoom capability providing still and video images. Cameras will be launched in 2011 by HTV number 3. Initial operation by 2011. Image output distributed to school and class rooms through interactive web site hosted by JSF. Website content provided in both Japanese and English.

Lead(s): Susumu Yoshitomi/JSF - Project Lead  
Charles Miller/NASA HQ-IPP - NASA Coordinator  
US School coordinator - TBD

JUSTAP Support: Project endorsement. Setup Hawaii liaison through State Department of Education to connect to local schools. Coordinate project with future JUSTSAP meetings.

NASA/JAXA Support: NASA endorsement and coordination of project.

Key Next Step(s): Setup NASA/US coordination and collaboration. Endorse the ISS Hyperspectral Imaging Project.

**Title: Space Kona Coffee**

Description: Phase 1: Develop a student competition to design the first practical zero-g coffee maker. Junior High and High-school groups from all Hawaiian school districts invited to compete with university and industry mentors and commercial sponsorship. Finalists will build mid-deck locker sized coffee makers for testing in zero-g parabolic flights in 2011. Final winner selected at November, 2011 Kona Coffee Festival. Winner will be manifested to ISS via HTV and installed and operated by Astronaut Don Pettit. Phase 2: Bring Kona Coffee seeds to ISS for germination and growth in JEM plant growth chamber. Return to earth and distributed to class rooms in Hawaii and Japan. Phase 3: Cultivate space grown Kona Coffee trees for commercial distribution (ISS/Hawaii space branding campaign).

Lead(s): Misuzu Onuk/Newspace Consultant Corpi – Project Coordinator,  
Dave Bateman/Heavenly Hawaiian Kona Coffee – Coffee Expert and local liaison,  
Don Pettit/US Astronaut – technical advisor,  
Chuck Lauer/Rocketplane Global - Cooperate Sponsor  
Llyod French/UH Minoa, Hawaii Space Flight Lab - Coordinator for local mentors and technical support

JUSTAP Support: Project endorsement by JUSTSAP steering committee. Liaison with Hawaii department of education. Award ceremony part of JUSTSAP 2011 meeting.

NASA/JAXA Support: Connect with Don Pettit. NASA/JAXA education department support for contest kits for educators and student teams. Manifesting of payloads on HTV and ISS. Pages and links on NASA/JAXA web sites. Develop and sign space act agreements with NASA. Agreement with JAXA industrial collaboration center. NASA/JAXA press releases at contest kickoff, Fall, 2010. Supply of mid-deck locker shells.

Key Next Step(s): Form contest organizing committee by January, 2010. NASA/JAXA agreement to fly winning payload by March 2010. Draft contest rules established by April, 2010. Contest kits drafted by June 2010. Initial contest sponsorship agreements by July, 2010. Contest roll-out campaign developed by August, 2010.

**Title: Lunar Robotic Analog Activities**

Description: This project will make use of the Lunar Regolith Facility at NASA Ames and the Lunar Analog Site on the big island of Hawaii. The goal of this project is to develop and validate technologies and methods for collection, processing and movement of lunar regolith to support exploration and commercial lunar activities. Activities will include tele-operated robotic lunar simulations using both the NASA Ames and Hawaii facilities. Some of the questions that will be addressed include extraction of oxygen and other elements from regolith; metling of lunar regolith to provide WADIS, landing sites, roads, and habitat foundations; collection and transportation of regolith; dust mitigation approaches. Possible tie-in to Space Port Hawaii theme park tele-operated rover attraction.

Lead(s): Frank Schowengerdt/PISCES Director - Project Lead  
Mark Newfield/NASA Ames - Co-Project lead.  
TBD/JAXA/ISAS - Co-Project Lead (tentative)  
TBD/Corporate - Co-Project Lead

JUSTAP Support: Endorsement of project. Coordination with PISCES.

NASA/JAXA Support: Access to Ames Lunar Regolith Facility. Coordination with NASA/JAXA robotics experts and activities.

Key Next Step(s): Validate project committee. Secure initial NASA/JAXA/PISCES support. Develop initial materials for use of Ames and Hawaii sites. Investigate potential corporate collaborations. Endorse the WADIS Project.

**Title: Spaceport Hawaii**

Description: Develop a working sub-orbital HTHL spaceport operation using the existing airport infrastructure at Kalaeloa, Kona, and Honolulu International airports. Activities include space tourism flights, micro-satellite launch, micro-gravity research flights, and remote sensing/earth observations. In conjunction with the actual space flight operations, a major space themed tourist attraction featuring state of the art virtual reality, full motion space flight rides (sub-orbital, orbital, lunar, mars, solar system tours), IMAX theater, interactive tele-robotics center, and space camps (local students and tourists). Also included will be zero-g parabolic flights and high-g jet training flights.

Lead(s): Chuck Lauer/Rocketplane Global - Project Lead  
Jim Crissafulli/DBEDT Office of Aerospace Development - Public sector liaison  
Howard Wolff/WATG - Project architect and planners  
John Strom/Self - Honolulu Technology Business Consultant

JUSTAP Support: Project endorsement. Liaison to lunar analog sites.

NASA/JAXA Support: Sub-orbital research customers. Access to new lunar and mars reconnaissance imagery for virtual reality spaceflight development.

Key Next Step(s): Release funding for Spaceport FAA/AST licensing application. Obtain land-lease agreement for Kalaeloa space theme park site. Develop renewable energy supply plan for 100% of all power and fuel needs for spaceflight operations and theme park development. Develop preferred lodging provider agreements with existing five star resorts on Oahu and Kona.